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The Liberal Arts in a Revolutionary World

OLIVER J. CALDWELL

International Teacher Development Program

ROBERT E. L. CRANE

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—Office of Education

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The Liberal Arts in a Revolutionary World

BY OLIVER J. CALDWELL*

WE LIVE in a time of continuing multiple crises. The status of mankind is changing. There is a rapid change in the relationships of man to his fellows and to his universe. This is a time of paramount danger. Once we could defend ourselves against danger by force. But now the nature of the forces available to us prohibits their use except as a last resort. Our best defense in these times is the universal understanding which is the goal of liberal education.

The American liberal arts college today has a new mission. Although these colleges owe much to Europe, they are unique. In the past, they have served an evolving American people exceedingly well by giving millions of Americans an intellectual grand tour of their cultural heritage. The liberal curriculum has been a powerful force for sanity in a troubled world. It has built for our country a foundation of idealism and has created a sense of identity with our neighbors of the Western World. Liberal education has been the platform on which we have built a towering edifice of technical and scientific achievement. Our social and political wisdom, which so far has guided us through a growing crescendo of crises, we owe largely to the liberal tradition in our colleges.

But education in a dynamic society must keep pace with social changes and new obligations. I have an uneasy feeling that our system of liberal education is losing touch with reality, that it is not adapting effectively to a new world. The intellectual structure of yesterday is growing obsolete.

There is a critical need for a reappraisal of the processes and goals of liberal education. The nature of the opportunities which challenge our children requires that they receive an intensified and broadened liberal learning which will accurately reflect the realities of their generation.

When we consider the more serious changes in our world, we see that a reassessment of our ideas of liberal education is required.

RECENTLY the president of the American Bible Society and a prominent Russian rocket expert separately stated that the world is becoming a village. Isolation and distance have been destroyed by improved communications and transportation, by nuclear weapons, and by the rocket. Suddenly the earth is shrunken, and every man is neighbor to every other man. Herein lies a great danger because Everyman does not understand his neighbor. There are barriers of prejudice and ignorance, supported by political, social, racial, and religious differences. The survival of the village of man requires the removal of ancient barriers by new skills and wisdom, and the creation of a new awareness that all of mankind are one species.

The removal of barriers is a special challenge to American education. Today our liberal arts curriculum emphasizes Western Europe and North America. But Americans live everywhere, and every American is part of the Main. Our Western civilization is only one of several great traditions. The truly educated man of tomorrow must also understand the other great traditions.

Living together as a family of man requires new awareness and understanding. Liberal education may no longer be based on a single culture. Mono-

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Mr. Caldwell holds the B.A. and M.A. degrees from Oberlin College. He has received two honorary degrees.

cultural education in a polycultural world is obsolete. Liberal education adequate for tomorrow must be polycultural education.

IT is said that the volume of man's knowledge is doubling every 15 years. A recent news release states that 90 percent of all of the people in human history who have made major contributions to the natural sciences are alive today. This certainly could not be said of the social sciences, the humanities, and the fine arts. Knowledge has expanded suddenly and also unevenly.

We are faced by a critically unbalanced growth in our intellectual heritage. We seem to know much more about what happens inside an atom than we do about the workings of a human mind. This is dangerous because the energies in the atom may be misused by man's mind. To protect ourselves against ourselves we must learn to know ourselves at least as well as we understand the forces of nature.

We also are challenged by the changing value of various kinds of knowledge. In today's world a 1946 curriculum is not valid, because whole new sciences have been developed. One of the hardest problems we face is the assignment of appropriate priorities to new knowledge; an even harder problem is how to get rid of surplus intellectual baggage to make room for important new knowledge. Perhaps the hardest problem is to identify and preserve the knowledge of the past which is eternally valid.

There is a dangerous temptation to rate only the hard sciences, mathematics, and related subjects as essential, and to eliminate broad humanistic studies to make room for the skills which contribute directly to the conquest of the cosmos and to our military strength. This is very bad reasoning. It is true that we must increase our physical power in order to stay alive and free, but an increased knowledge of humanity and a fresh awareness of spiritual values, are essential if we are not to abuse the new physical power we already have. We must cultivate wisdom if we are to survive in a world in which potential enemies also possess the physical power necessary to destroy mankind.

Surely the answer lies in part in a new and stronger liberal education for everyone. It is our responsibility to make opportunities available to our young people to acquire this new and stronger learning.

MANY other changes in our society present challenges to the educator which our fathers never faced. I will discuss only two more, two which have a special bearing on the importance of learning. One is the Communist revolution. The rapid expansion of communism should be likened to the spread of Islam in the first half-century after the Hejira. Communism should be considered as both a revolution and a religion. We are more familiar with its revolutionary than with its religious aspects. We should become more familiar with its religious aspects.

It is a religion which denies the validity of religions. It is to other religions as the newly postulated antimatter is to our own material world. For this reason, any genuine coexistence will be difficult until the nature of communism itself has changed. There is, however, reason to believe that communism does change. There are now at least three types of communism which all claim to present the true revelation; these are the Russian, the Chinese, and the Yugoslav versions of Marxism.

Communists of all three types agree on one thing: the importance of the human mind as the source of all social, political, and economic advancement. Thus communism challenges all the nations to educate all of their children.

Americans, though they are only a small minority—six percent—of mankind, stand as an effective barrier against the conquest of the whole world by communism; to help them continue to stand, American education today has special responsibilities.

- It must give Americans the technical skills they need to compete effectively against Communist polytechnic education.
- It must also equip every American with a broad general background.
- It must help the many emerging hungry nations to develop their human resources.
- It must impart to our students reverence for beauty and humility before the unknown lest man in his arrogance destroy himself.

THE OTHER multiple pressure of our society and system of education which I will mention is the rising power of the non-Western World. For the past 300 years mankind has been dominated by Western Europeans. They conquered the weaker inhabitants of North and South American and Australia and established new nations on these continents. They made colonies of almost all of the peoples of Africa and Southeast Asia. Only Japan

of all non-Western nations was able to thrive in the face of Western power, and then only by developing superior military force.

There has been a sudden collapse of the old empires of Western Europe. The former colonies are emerging as free and independent nations. The rapid economic, political, and social developments in many of these new countries are matched by a transfer to them of the authority which once rested in Western Europe.

This situation is aggravated by prejudices, ignorance, hatred, and envy. Much of the trouble rises from the fact of race; the Western World is predominately white, but the emerging new nations are largely nonwhite.

THE social, political, and economic facts of our times require that liberal education no longer be content to introduce young Americans to the traditions of Western Europe, the Mediterranean world, and North America. If the principal function of liberal education is to introduce a young mind to its world, then it is clear that the young minds of today must be introduced to the great cultures which now vie with the Western tradition for power in the world of tomorrow.

The Slavic cultures are dominant in areas controlled by the Soviet Union; Chinese culture in its many variations is dominant in Eastern Asia; Indian culture is predominant in Southeast Asia; Islamic culture dominates the Arabic world which extends from Pakistan to Morocco; the countries of Latin America are rapidly becoming a powerful cultural unit which combines elements of the traditions of Spain and Portugal with the great traditions of the American Indian. There are also a number of important smaller cultures, especially in Africa.

A new liberal education must introduce young Americans to the total cultural traditions of mankind. The inadequacy of our present education structure to this task is dramatized by the failures of many individual Americans to adapt to life in the new nations and by the unwillingness or inability of many Americans at home to understand the nature of the new world in which they live. Americans abroad often establish plush-lined ghettos for themselves in Africa and Asia, and sometimes also in the Latin American countries. While many Americans have been welcome and understanding guests in other countries, millions who have lived abroad have huddled together suspiciously as they looked out at a world they had not been taught to understand. This lack of understanding has been a serious barrier to our success in helping to build a peaceful world order.

We need a new kind of education in the liberal arts college which will perform at least the following three functions:

- It will prepare all of its graduates to understand that our culture is not an island, that we stand as an equal among equals in a world in which there are many cultures. It will teach every young American, that, while there are many differences among the world's cultures, there is also a common foundation of humanity which all peoples share.
- It will prepare a new generation of teachers who at all levels will teach in the context of a single human family.
- It will prepare an increasingly large number of young Americans to serve with charity, courage, and insight among men of all cultures. It will also contribute to the evolution of an international civil service under the United Nations which may enable that organization to fulfill its historic function without infringing on any nation's heritage.

There are many efforts under way to meet our growing national need for polycultural education. There have been many attempts to broaden our present monocultural curriculum to make it an effective introduction to mankind. Although it is doubtful whether any of them have been fully effective, all of these efforts are significant:

1. The East-West Center in Hawaii is a noble experiment which will undoubtedly increase understanding among the peoples on both sides of the northern Pacific Ocean. However, it is an incomplete effort because it is limited by law and by the intent of its sponsors to the peoples who live on the shores of one ocean.

2. A great many colleges and universities are developing new languages and area programs. These are excellent and significant enterprizes, but they prepare too small a number of specialists in a few fields of knowledge. We need many more of these specialists, and we also need a general reorientation towards mankind for all of our students.

3. Several States, including New York, Pennsyl-

vania, and California, have decreed that their elementary children shall begin to study foreign languages and non-Western cultures. However, according to reports, the educational authorities in these States are finding it difficult to locate teachers who can carry out these directives effectively.

4. Several years ago Colgate University launched an experimental project in which undergraduates were required to take a minor in a non-Western culture. Apparently this effort was not fully successful and the project has been considerably modified.

5. The Elbert Covell College at the University of the Pacific, in an interesting new experiment, will teach all subjects in Spanish except English language and literature. The college should be very useful in helping students from the United States become experts in Latin American affairs, and students from Latin America become experts in U.S. affairs. We need more colleges of this type, and they should cover all the major non-English cultures.

6. Two New York State experiments are of particular interest. The Plattsburgh State University College of Education is trying to reorganize its curriculum to enable instructors to teach most subjects from the standpoint of the total contribution of all cultures to specific subject areas. The State Teachers College at New Paltz has for some years carried on highly effective inservice summer training programs to inform elementary and secondary teachers about African and Asian affairs. In addition it has established a world study center and now requires all of its graduates to have credits in certain courses in the history and traditions of non-Western cultures.

7. Several of the foundations are promoting the idea of mobilizing total academic resources of a few of our institutions for experimental work in polycultural education.

All of these and many other experiments are an indication of the intellectual ferment of our times. We may hope that we are on the verge of a new renaissance, since the great outburst of learning and creativity of our earlier renaissance was probably stimulated in part by contact with other cultures.

WHAT SHOULD we do in the face of all of this activity? A few years ago the faculty of one of our largest universities worked for 2 years on a plan which it adopted, only to have it vetoed by the board of trustees. This plan is worthy of our consideration today, since something like it could be a major step towards providing adequate polycultural liberal education.

First, this plan would establish a core of 54 semester hours which all undergraduates would study. These 54 credit hours would be distributed equally among the social sciences, the humanities including the fine arts, and the natural sciences. These courses would emphasize the total contribution of all of mankind to these specific areas of knowledge. For example, a philosophy professor would no longer teach that certain philosophical concepts originated in Greece, were modified by the Hebraic-Christian tradition, and are the exclusive heritage of a superior people who live in Western Europe, North America, and certain parts of the British Commonwealth. Instead he would teach that certain ideas emerge at a given level of the evolutionary development of many cultures and are in fact a common ground on which men and women everywhere may meet.

Students would be able to count 18 hours of this core towards the fulfillment of their major requirement.

In addition the plan would intensify traditional language and area studies, and each student would be required to take a minor in a non-Western culture. Thus every graduate from this undergraduate college would have a broad polycultural background and also an introduction to a specific part of the world.

This plan could be the beginning of a new conception of the liberal arts in this country. Something like this approach to liberal learning is seriously needed in the United States today.

The 4-year course of study outlined above could be followed by 2 years of study which would lead to a master of international arts for those who desire a more thorough introduction to the world in which they live. Candidates for this degree would take their first year of study abroad in a university approved by their American colleges. They would then return for a second graduate year competent in a language and in the culture of another country. On fulfilling normal academic requirements for a master's degree, they would be better prepared than any people now graduating from American higher

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International Teacher Development Program

By ROBERT E. L. CRANE*

MORE THAN 5,000 teachers, principals, inspectors, and Ministry of Education officials from 83 countries and dependencies have been brought to this country for training since 1950 under the International Teacher Development Program. This program is one of a variety of cultural, educational, and informational exchange programs which the United States Government conducts.

This teacher training program has proved to be uniquely effective in creating an atmosphere of mutual understanding and respect among educators in many countries of the free world. During their experiences in the United States, these visiting educators coming from the four corners of the world can be expected to attest to the fact that teaching is an international profession which can affect the lives and thinking of people around the world. They will interpret accurately their own cultures to our people, and when they return home, with first-hand knowledge and with better understanding, will be able to portray ours to their people and their students.

Grants are now authorized for this program by the Mutual Educational and Cultural Exchange Act of 1961 (Public Law 87–256, 87th Congress), popularly known as the Fulbright-Hays Act, approved September 21, 1961.

The program is administered by the United States Office of Education in cooperation with the Bureau of Educational and Cultural Affairs, Department of State, through an annual contractual agreement between the Department of State and the Department of Health, Education, and Welfare.

Foreign educators applying for these training grants are carefully selected. Each applicant must be a professional educator with at least three continuous years of successful, full-time educational experience. He must also be of good moral character; have suitable personal qualities; be able to speak, read, write, and understand the English language; and have good health.

Each candidate for a grant is nominated by his Ministry of Education with the concurrence of the United States Embassy in his country. Final selection of grantees is made by the Department of State, acting upon the recommendations of the Office of Education. International travel awards are approved by the Board of Foreign Scholarships. Each successful candidate is provided with funds for necessary travel within the United States, tuition and fees where required, a book allowance, and a modest monthly allowance. Competition for these awards is usually quite keen.

Late in August, the teachers begin to arrive in Washington, D.C. The first phase of their activities includes a 2-week period of orientation to American life, education, and customs, as well as the opportunity for association with an international group of their own profession. The few who need it are given intensive additional work in English at the American Language Institute, Georgetown University. A series of lectures on American civilization and culture is provided by the Washington International Center. Arrangements are made for them to visit places of historic and cultural interest and to take part in a general discussion of the philosophy of education and of the broad aspects and problems of education in the United States. Specialists in the Office of Education arrange individual and small-group discussions in the different fields of interest represented by the visitor.

American colleges and universities contribute immeasurably to the success of this program. After the orientation period in Washington, D.C., the visiting educators are assigned in groups of approximately 20 to institutions of higher learning which cooperate with the Office in the intensive academic phase of the program. At the institutions the visitors attend group-study seminars of approximately 13 weeks' duration, from late September until late December. These are varied and flexible projects in specialized fields of education; they

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combine practical community experience and university lectures or seminars, and acquaint the teachers with the principles and methods of instruction, administration, and organization as developed and practiced in the United States. The group experience adds positively to the educational experience of the teachers. For example, they develop a spirit of camaraderie among themselves; they establish genuine friendships that can be expected to count for much in the improvement of human relations.

At the college or university training centers, seminars in the organization and administration of schools and in current educational problems are conducted. Some seminars become means for the teachers to study educational practices and problems of all countries which they represent. They also audit courses of special interest to them and enjoy supervised visits to many schools in the vicinity.

Emphasis is placed on their learning about the American people and the American way of life as well as on their academic program. Where possible, the teachers are housed with selected American families so that they may learn more about family life in this country. They visit churches, libraries, factories, farms, museums, cultural centers, and other places of interest. Most of them have the opportunity to travel widely during the vacation periods. They see national shrines and monuments and visit natural beauty spots. They speak before service clubs and participate in such activities as school board meetings, town council meetings, civic forums, and many others. Every effort is made to involve the teachers in a wide variety of extracurricular campus and community activities.

These activities in the university phase of the program offer an exceptional way for the visiting educators to represent their countries here and to become aware of the opportunity they will have to communicate their discoveries of America, her aspirations and problems, to their pupils, friends, and colleagues after returning home.

After their period of residence at the college or university ends, the teachers have a 2-week Christmas holiday and travel period. Afterward they are assigned, from early January to the middle of February, in small groups of 5 to 10 to a State department of education and subsequently to a school community in another section and State of the United States in order that they may enjoy a broader, more diversified experience. At the State departments the teachers discuss education in the State with staff members before going individually to specific communities to observe schools.

During the last 10 years, more than 200 groups of teachers have been assigned to State departments of education in 47 States and the Commonwealth of Puerto Rico. It is during the visitors' community assignment that the program has greatest influence. Thousands of American children and adults are brought into association with the visiting teachers as the program reaches into communities of all sizes in this country. Each year, more than 300 communities receive teachers for 5–6 weeks. During this period, they visit several thousand public and private schools, live with American families, and participate in all kinds of community activities. Ideas, customs, history, culture, and education are discussed and experiences shared in many ways.

At the conclusion of this part of the program, approximately 2 weeks before the teachers depart from the United States, they return to Washington, D.C., to discuss their experiences in education with staff members of the Office of Education. While they are in Washington they prepare a report of their activities in this country.

These reports regularly mention changed impressions about the United States, new appreciation of the philosophy of American education, and better understanding of the character and purpose of our people.

It may be difficult to determine precisely the intellectual effect made on our colleges and schools by these teachers, but undoubtedly the stimulation of having our concepts, practices, and points of view challenged by experienced educators from around the world has broadened our vision and deepened our thinking.

Last year, about 500 educators from 65 countries and dependencies participated in the program. Groups from Chile, Costa Rica, and Uruguay completed programs arranged by English Language Services, Inc., in Washington, D.C., the University of Pittsburgh, and State University of New York College at New Paltz. Groups of teachers from Italy, France, Colombia, Iran, and Martinique came last summer for special programs at Georgetown University and the University of Washington. From September 17 to December 14, 1962, groups

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OFFICE OF EDUCATION *Studies* AND *Surveys*

Survey of Mathematics Programs in Institutions Granting Bachelor and Higher Degrees

Two reports have been made and a third will soon appear from an Office of Education study of mathematics programs in colleges and universities.

In January of 1961 the Office sent out a questionnaire dealing with undergraduate and graduate programs in mathematics; it went to heads of mathematics departments in 1,087 institutions of higher education throughout the United States. A total of 877 respondents filled out the form and reported such information as enrollments in specific courses, types of curriculums offered, kinds of degrees awarded, advanced standing, honors programs, and inservice training for teachers.

The study is being conducted by Clarence B. Lindquist, specialist for mathematics and physical sciences in the Division of Higher Education. So far Dr. Lindquist has made two reports based on the study: A compilation of graduate programs offered at specific institutions, which appeared in the December 1961 *Special Issue of the NOTICES, Assistantships and Fellowships in Mathematics in 1962–1963*, vol. 8, No. 7, part II, Issue No. 59, of the American Mathematical Society; and a similar compilation of undergraduate programs, which was released in the fall of 1962 as an Office of Education publication, *Guide to Undergraduate Programs in Mathematics*, Circular 1962 (OE–56008).

Dr. Lindquist has prepared a summary report of the findings of the survey which the *Education Record* of the American Council on Education will publish. He is also planning some brief preliminary reports on certain aspects of the study of broad general interest. The complete, final report is in preparation for publication as an Office circular.

Preliminary Data on Fall Enrollments

TOTAL degree-credit enrollment in colleges and universities for the fall of 1962 has increased by 37.1 percent since the fall of 1957, a preliminary report from the Office of Education shows. The full report, *Opening (Fall) Enrollment in Higher Education 1962: Institutional Data*, will be published early in 1963 and will contain data for each institution reporting.

The 1962 fall enrollees included 2,603,000 men and 1,604,000 women compared with 2,424,000 men and 1,467,000 women in the fall of 1961. The percentage increase for men was 7.4; for women, 9.3.

The table below presents summary information for 1962 and comparative data for the years 1957 to 1962.

Total and first-time opening (fall) degree-credit enrollment,[1] by sex, U.S. colleges and universities, 1957–62

Year	Total degree-credit enrollment			First-time degree-credit enrollment [2]		
	Both sexes	Men	Women	Both sexes	Men	Women
Enrollments:						
Fall 1962	4,206,672	2,603,072	1,603,600	1,038,620	601,993	436,627
Fall 1961	3,891,230	2,423,987	1,467,243	1,026,087	595,794	430,293
Fall 1960	3,610,007	2,270,640	1,339,367	929,823	542,774	387,049
Fall 1957	3,068,417	2,003,424	1,064,993	729,725	445,324	284,401
Percent changes:						
1961 to 1962 (1 year)	+8.1	+7.4	+9.3	+1.2	+1.0	+1.5
1960 to 1962 (2 years)	+16.5	+14.6	+19.7	+11.7	+10.9	+12.8
1957 to 1962 (5 years)	+37.1	+29.9	+50.6	+42.3	+35.2	+53.5

[1] Degree-credit students are those whose programs consist wholly or principally of work normally creditable toward a bachelor's or a higher degree. Resident and extension degree-credit students, full-time and part-time, are included. However, the survey does not include students taking degree-credit work at home by mail, radio, or television. Also excluded are students in branches of U.S. institutions operated in foreign countries.

[2] A first-time degree-credit student is one who is reported as a degree-credit student but who has not previously been a degree-credit student in any institution of higher education. Students were reported as "first-time" in this survey if the fall of 1962 marked their first enrollment in any institution for programs of the degree-credit type.

Salaries at Land-Grant Institutions

As PART of the Office of Education's University Finance Series, the Division of Higher Education has made a study of the changes over the past 50 years in the salaries of administrators and faculty in land-grant institutions.

Salary data from 52 land-grant institutions formed the basis for answers to these questions:

1. What changes have occurred in faculty salaries at these institutions between 1912–13 and 1961–62: Before taxes, after taxes, after adjustment to purchasing power in accordance with the Consumer Price Index?

2. What trends have appeared in these salaries over the 50-year span?

The study analyzed data on the salaries of six faculty positions: President, dean, professor, associate professor, assistant professor, and instructor. The current trend in salaries, the study found, is upward, although it is occurring late in relation to the inflation of recent years. Salaries for faculty members with 4 exemptions (self, wife, and two children) have risen in real value from 13 percent (for presidents) to 60 percent (for deans) over the last half-century. Although salaries at land-grant institutions generally average higher than the salaries at all 4-year public institutions, the salary trends shown in the study are considered typical of salary trends for other faculty groups.

The study is entitled *A Half-Century of Salaries at Land-Grant Institutions*. See "New Publications" for further information.

International Education

International Exchange

AN annual survey conducted by the Institute of International Education has found a number of interesting facts about the extent and nature of international exchange in the United States. The following figures are taken from this survey, entitled *Open Doors 1962*.

During 1961–62 a total of 58,086 foreign students attended 1,798 institutions throughout the United States. This is an increase over the 53,107 students reported in 1960–61. Nearly 150 foreign countries and territories were represented in the 1961–62 exchange.

The undergraduate level had the greatest number of students—29,376 or 50.5 percent, closely followed by the graduate level with 24,624 or 42.4 percent. Special students accounted for 2,627 or 4.5 percent, and 1,459 students or 2.5 percent were not identified in the Institute's report.

The leading fields of study reported were engineering, in which 22.4 percent of the students were enrolled; the humanities, 19.2 percent; the natural and physical sciences, 16.2 percent; the social sciences, 14.5 percent; business administration, 8.8 percent; medicine, 7.1 percent; education, 5.2 percent; and agriculture, 3.3 percent. The remaining 3.3 percent either were in other fields or did not specify their field.

Support for these students came from a variety of sources: nearly 37.6 percent of the foreign students received support from private organizations, 9.4 percent from the U.S. Government, 4.9 percent from a foreign government, 1.9 percent from the U.S. Government and private organizations, and 0.9 percent from a foreign government and private organizations. Nearly 30.2 percent of the students were self-supporting; the remaining 15.1 percent did not specify the source of their funds.

American students abroad totaled 19,836 during 1960–61, an increase over the 15,306 reported in 1959–60. They studied at 590 institutions in 66 countries. The majority of the students (17,023) attended institutions in Mexico, Canada, and Western Europe.

In 1961–62, 5,530 foreign scholars—most of them members of university faculties—from 90 countries came to the United States, as compared with 3,636 scholars from 76 countries in 1960–61. Nearly 73 percent of the foreign faculty came from Japan (13.5 percent), United Kingdom (12.9 percent), India (11.3 percent), Germany (6.5 percent), Republic of China (4.5 percent), Canada (4.3 percent), France (3.1 percent), Italy (2.6 percent), Australia (2.3 percent), and Switzerland (1.9 percent).

The natural and physical sciences was the field of 44.3 percent of the foreign faculty. Other major fields of study were medicine, 20.2 percent, the

humanities, 12.9 percent; the social sciences, 8.9 percent; engineering, 8.0 percent; agriculture, 2.4 percent; education, 2.2 percent; and business administration, 0.6 percent.

United States faculty members also went abroad in 1961–62. The survey reported 2,427 faculty members in 90 foreign countries, as compared with 2,218 in 1960–61. They taught or conducted research in many leading areas of the world: Europe, 50.1 percent; the Far East, 16.3 percent; Latin America, 10.4 percent; the Near and Middle East, 7.8 percent; and Africa, 7.4 percent. Their leading fields of specialization were the humanities, 27.6 percent; the social sciences, 22.7 percent; the natural and physical sciences, 19.7 percent; medicine, 8.9 percent; education, 7.7 percent; engineering, 5.6 percent; agriculture, 3.9 percent; and business administration, 3.3 percent.

New Educational Center for India

INDIA is building a $2.4 million National Institute of Education, on a 70-acre site near New Delhi. The NIE is designed to train teachers for educational leadership, to initiate and conduct important research projects, and to develop and conduct educational extension and field services. The vast demands made by India's developing economy on its educational system has necessitated the establishment of a single, integrated institution to prepare educational leaders of the highest order.

A number of all-India agencies, including the Central Institute of Education, the National Institutes of Audio-Visual and Basic Education, the Bureau for Text Book Research, and the Bureau of Educational and Vocational Guidance, have been integrated to form the NIE.

Scheduled to open on its new campus by July 1963, the NIE marks the culmination of India's National Program of Professional Education, which had been under way for the past 3 years with assistance from the U.S. Agency for International Development.

NSF To Build International Observatory

SITE surveys for an international research observatory located in Chile are now nearing completion, the National Science Foundation announced recently. The optical observatory will be available to both Chilean and United States astronomers. It is being established to meet the need of U.S. astronomers for a location from which to view the important astronomical objects not visible in the northern hemisphere. Among the most important of these are the southern half of the Milky Way and the two nearest external galaxies, the Magellanic Clouds.

Funds for the installation will be provided by NSF as part of its program of national research centers. Total amount budgeted for the observatory through fiscal year 1963 is $1,050,000. A succeeding budget, of approximately the same amount, is planned.

The major instrument for observation is a 60-inch telescope, provided by the U.S. Air Force at an estimated cost of $750,000.

The observatory is to be operated for NSF by the Association of Universities for Research in Astronomy, Inc., a national nonprofit organization. The Association also operates the Kitt Peak National Observatory in Arizona, another NSF facility.

NIH Establishes New Overseas Office

THE National Institutes of Health will establish an office in Tokyo, Japan, early next year to administer Public Health Service research interests in the Pacific area, including the Far East and Asia, according to an announcement by James A. Shannon, NIH director.

The Tokyo headquarters, a branch of the NIH Office of International Research (OIR), will also have representation in New Delhi, India. OIR's function is to formulate policy and to analyze and coordinate the international programs and activities of the National Institutes.

The new operation, designated as the Pacific Office, is the third such overseas extension of NIH. A European office was opened in Paris last December, followed by a Latin American office in Rio de Janeiro in August 1962.

NSF Sends Representatives to Latin America

ALAN T. WATERMAN, director of the National Science Foundation, has assigned Harlow B. Mills and Max Hellmann as the Foundation's representatives to the U.S. Regional Science Office in Rio de Janeiro to help expand the exchange of scientific knowledge between scientists and institutions in

the United States and the Latin American countries.

The Regional Science Office is attached to the American Embassy in Rio de Janeiro, and is an integrated office of United States agencies with scientific representatives from NSF, NIH, and the Department of Defense. It coordinates programs of various U.S. agencies in countries throughout Latin America.

Through its new representatives, NSF expects to keep in close touch with developments in science in Latin America. Dr. Mills and Dr. Hellmann will travel to the other Latin American republics from their base in Rio de Janeiro.

AID Sponsors Study Program at University of Puerto Rico

BEGINNING this winter, citizens of Latin American countries will be able to earn advanced degrees in public administration in Puerto Rico through a new Alliance for Progress program negotiated between the Agency for International Development and the University of Puerto Rico. The first group of 15 students will enroll in the program in January.

Both graduate and undergraduate courses, given in Spanish, will be offered at the University's Río Piedras campus, outside of San Juan, through a $275,000 AID contract. The added curriculum will be integrated into the broad, AID–financed training program already assisting several thousands of students from South and Central America who go to Puerto Rico each year.

The purpose of the contract is to enable educators from various Latin American countries to attend the University of Puerto Rico for master's degrees in public administration and to return to their home countries to disseminate this knowledge to other students and researchers. The curriculum will run for 16 months, three of which will include on-the-job training in government agencies of Puerto Rico.

In addition to the graduate program, seminars in public administration will be given to 100 Latin Americans a year.

Conducted at the college undergraduate level, these intensive courses will be made available primarily to employees of government agencies.

The university will also conduct seminars in Latin America to help increase public understanding of the methods of achieving the economic goals of the Alliance for Progress.

OE program notes

National Defense Education Act

Graduate Fellowship Program

THE Office of Education has approved 623 graduate fellowship programs at 155 colleges and universities for the 1963–64 academic year. By April 15, 1963, the Office will award a total of 1,500 graduate fellowships in the approved programs to candidates nominated by the institutions.

In 1963–64 for the first time all 50 States and the District of Columbia will be participating in the NDEA graduate fellowship program.

The awards are authorized under title IV of the NDEA for the purpose of increasing the number of well-trained college and university teachers. Graduate fellowships are awarded to able students working toward the doctoral degree in preparation for teaching careers. Title IV also authorizes financial assistance to graduate programs in which the fellows are studying.

Of the 623 programs to be assisted in 1963–64, 431 have received support in previous years and are being allocated additional fellowships. The remaining 192 programs will be supported for the first time.

The approved programs were chosen from among 1,175 proposed by 172 institutions, involving a total of 5,600 fellowships. These proposals were reviewed by the Title IV Advisory Committee composed of university presidents and deans and a group of consultants representing the six major academic areas. Their recommendations served as the basis for the final selections by the Office of Education.

The approved 1963–64 programs are distributed among academic areas in the following proportions: Humanities 21 percent; education 10 percent; social sciences 24 percent; biological sciences 18 percent; physical sciences and mathematics 16 percent; and engineering 11 percent.

The 1963–64 awards of 1,500 fellowships will bring the program's total of fellowships to 7,000 awards. A total of 5,500 graduate fellowships have been awarded since the start of the program in 1959.

For each fellow enrolled in an approved graduate

program, the participating graduate school receives a cost-of-education payment of up to $2,500. When the fellows selected in the spring of 1963 enter graduate school, about $38.8 million in Federal funds will have been paid or obligated to the graduate schools since the start of the program. These funds are used by the schools to help finance new or expanding programs. Fellows receive stipends of $2,000 in the first year, $2,200 in the second, and $2,400 in the third, plus an allowance of $400 for each dependent.

Language Institutes Abroad

TWELVE U.S. colleges and universities will conduct language institutes abroad during the summer of 1963, under contract with the Office of Education. These institutes are part of the language institutes program authorized under title VI of the National Defense Education Act, to provide advanced training to elementary and secondary school language teachers. Almost all the institutes to be held abroad next summer will be second-level; that is, they will be for teachers who have already attended one NDEA summer language institute.

A first-level institute in French, for which prior participation in an NDEA language institute is not required, will be conducted by the University of Notre Dame at Trois Rivières, Canada. This marks the first time that an NDEA language institute at this level has been conducted outside the United States.

Four second-level institutes are new. They will be established in French by the College of St. Catherine at Rennes, France; and in Spanish by Bradley University at Guatemala City, Guatemala, and the University of Wichita, at Puebla, Mexico.

The eight remaining institutes were established in past years. A second-level institute in Germany, established by Stanford University at Bad Boll, Germany, in the summer of 1960, will be conducted for the fourth consecutive summer, and will be expanded into a combined second- and third-level operation. This third-level institute, one of the first of its kind to be supported by NDEA funds, is a pilot project aimed at developing future leaders and supervisors. Of the 109 enrollees at the Bad Boll institute, 27 will be in the third-level program. These teachers will be carefully selected from among participants in previous second-level and in previous German academic-year institutes; they are expected to develop into leaders of the profession.

Three institutes will be conducted for the third consecutive summer; in French, by the University of Oregon, at Tours, France; in Russian, by Indiana University, at Moscow, U.S.S.R.; and in Spanish, by the University of Puerto Rico at Río Piedras, P.R.

The four other institutes will be held for the second summer. One in French by Emory University, at Besançon, France; and three in Spanish—by the University of Arizona at Guadalajara, Mexico; the University of New Mexico at Quito, Ecuador (this one was held last year by the Institute for Foreign Trade); and Texas Technological College at Tucumán, Argentina.

These 12 institutes will enroll a total of 753 language teachers: 322 in Spanish, 280 in French, 109 in German, and 42 in Russian. Total cost will be about $1.2 million.

The names of colleges and universities which will conduct 63 National Defense Language Institutes in the United States during the summer of 1963 and academic year 1963–64 will be announced in the near future.

Summer Intensive Language Programs

Summer programs of intensive language instruction at 20 NDEA language and area centers will receive Federal support during the summer of 1963. NDEA language development (title VI) funds for these special summer programs, which include 26 critically needed languages not commonly taught at U.S. universities, will total about $200,000 and will be matched by the centers.

A series of specially designed intensive language programs conducted during the summer first received large-scale NDEA support in 1962, and the success of that summer's programs has led to an expansion of support in 1963.

The summer programs will focus primarily on intensive instruction in the language, although related area studies are not precluded. Students enrolled in these intensive summer programs receive instruction equivalent to a full year's coursework in language, without interference from the more diverse requirements involved in study during the academic year.

The programs are distributed geographically in such a way as to provide the greatest possible oppor-

tunity for students from all parts of the United States to attend centers offering programs in their field of study. The distribution of programs by world language area is as follows: 7 in Far Eastern languages; 4 in Slavic; 2 each in African, Middle Eastern, South Asian, and Southeast Asian languages; and 1 in Portuguese.

Federal funds will be used mainly to cover costs of instruction; i.e., to pay regular and specially appointed faculty members teaching in the centers. A number of scholars from abroad are scheduled to teach in the summer programs in 1963.

The majority of enrollees will be graduate students, but 13 of these programs will include recipients of 100 special summer fellowships for undergraduates offered by the NDEA language fellowship program in cooperation with the centers.

The languages and programs to be supported, in addition to all of those listed for the Undergraduate fellowship program, include the following: University of Colorado (Russian, Polish), Fordham University (Russian), Harvard University (Korean, Armenian, Hebrew), University of Hawaii (Korean), Indiana University (Polish, Russian, Serbo-Croatian), University of Michigan (Russian, Serbo-Croatian), New York University (Portuguese), and the University of Pennsylvania (Hindi-Urdu, Tamil).

Language Fellowship Program

A PILOT program of awards to 100 undergraduates for a summer of intensive study of 18 critical modern foreign languages is being offered by the NDEA language development program (title VI) for the summer of 1963. This will be the first time that NDEA fellowships for advanced study have been made available to undergraduates.

The new program, supported by funds allocated to the national defense foreign language fellowship program will be conducted in cooperation with NDEA language and area centers located at 13 U.S. colleges and universities. The languages to be offered include Far Eastern, sub-Saharan African, Middle Eastern, South Asian, and Southwest Asian languages. A complete listing of the institutions, the languages in which awards will be made, and tentative quotas of awards appears below. These quotas by no means reflect the actual need for such study. The demand for individuals who have studied these critical languages, either as graduate students or undergraduates, far exceeds the supply. One purpose of this pilot program is to motivate students to study these languages.

Awards will include tuition and required fees for the summer course, round-trip transportation to the institution, and a maintenance allowance of $400.

Recipients must have had at least 1 year of formal college work or the equivalent in the language they propose to study. Preference will be given to applicants intending and able to study the language of the award during the following academic year.

Application materials are available from the institutions conducting the programs, and students should apply directly to the institutions, not to the Office of Education. The language and area centers will determine deadlines for the receipt of applications; however, the list of applicants, recommendations, and supporting documents must be filed with the Office of Education by February 15, 1963. The Office will announce the names of successful applicants and alternates on April 1, 1963.

NDEA Undergraduate Fellowships in Critical Languages

Summer 1963

University of California, Los Angeles (10 awards): Hausa, Swahili, Twi, Yoruba
University of Chicago (12 awards): Bengali, Hindi, Tamil, Telugu
Columbia University (12 awards): Chinese, Japanese, Korean
Duquesne University (3 awards): Swahili
Harvard University (10 awards): Arabic, Chinese, Japanese
University of Hawaii (10 awards): Chinese, Japanese, Indonesian, Tagalog, Thai, Hindi
Indiana University (2 awards): Korean
University of Kansas (5 awards): Chinese, Japanese
University of Michigan (12 awards): Chinese, Japanese
University of Southern California (5 awards): Chinese, Japanese
Stanford University (12 awards): Chinese, Japanese
University of Utah (3 awards): Arabic
Yale University (5 awards): Burmese, Javanese, Indonesian, Thai, Vietnamese

Counseling and Guidance Institutes

The Office of Education recently announced approval of financial support for 76 counseling and guidance training institutes. Authorized by title V–B of the National Defense Education Act, the institutes will be conducted during the 1963–64 academic year and the 1963 summer session by colleges and universities under contract with the Office.

The institutes are designed to improve the

qualifications of persons engaged in counseling and guidance in secondary schools and of secondary school teachers preparing to become counselors.

Since the program began in 1959, the Office of Education has supported 275 summer institutes and 65 academic year institutes with a total enrollment of 11,524.

Those attending the institutes from public secondary schools receive stipends of $75 a week and allowances of $15 a week for each dependent; those from private schools receive no stipends or dependency allowances, but attend without charge.

Approximately 60 percent of the Federal funds are used for stipends, the remainder for operation of the institutes.

Candidates should submit applications to the director of the institute. A list of institutes can be obtained from the Counseling and Guidance Institutes Branch, Office of Education, 400 Maryland Avenue SW., Washington 25, D.C.

Project English

THE Office of Education has approved three new 5-year curriculum centers under Project English.

The new centers, at the University of Minnesota, Hunter College, and the University of Oregon, raise the total to six centers under the Project. The three previously approved are at Carnegie Institute of Technology, Northwestern University, and the University of Nebraska.

J. N. Hook, coordinator for Project English, has announced that 20 research projects are now underway at colleges and universities all over the Nation. The projects investigate a range of subjects from the effect of frequency of writing and correction of compositions to the use of compressed special recordings in teaching blind children.

Ten new research projects in English have been approved by Project English, including a comprehensive national project to study school programs which consistently produce outstanding students in English.

Meeting in Washington, D.C. last November, the Research Advisory Panel approved projects totaling $240,000.

New projects and proposals are being considered by the Office in accordance with the following deadlines: January 1; proposals for demonstration centers; January 15, proposals for curriculum study centers; February 1, proposals for basic and applied research studies.

Other Program Notes

Atomic Energy Commission

THE Atomic Energy Commission has awarded 4 new contracts and has renewed 57 others in its unclassified physical research program. The total value of the contracts amounts to $6,253,460.

The contracts, generally made for 1 year, are awarded as part of the Commission's policy of assisting and accelerating research related to atomic energy in educational institutions and private research laboratories.

The Atomic Energy Commission is offering a variety of fellowships in the fields of health physics, industrial hygiene, and nuclear science and engineering. The fellowships are to be administered through the Oak Ridge Institute of Nuclear Studies (ORINS), a nonprofit educational corporation of 39 colleges and universities operating under contract with the Commission.

The special fellowship program in health physics (the study, evaluation, and control of radiation hazards) provides an academic year of study followed by 3 months of summer field training at a Government laboratory.

In general, AEC's fellowship program in industrial hygiene (the study and control of environmental conditions affecting the health of employees, such as heat, fatigue, mechanical hazards, toxic agents, and nuclear radiation) leads to the master's degree, but it may also offer opportunities for more advanced study and research leading to the doctorate. Fellowships include a basic stipend, allowances for spouse and dependent children, payment of normal tuition, required fees, a limited allowance for travel, and financial assistance to attend the annual meeting of the American Industrial Hygiene Association. Applicants may indicate their choice of institution

from five institutions participating in the program.

The fellowships in nuclear science and engineering are offered for a full calendar year at the first-, second-, and third-year levels. Fellows may select their schools from among the 59 institutions participating in the program. Fellows receive stipends, allowances for spouses and dependent children, normal tuition, required fees, and an allowance for initial travel.

Further information about these fellowship programs may be obtained from the Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tenn.

National Institutes of Health

THE Public Health Service awarded 6,591 research grants and 2,035 fellowships totaling $196,847,853 during the first 4 months of fiscal year 1963.

The National Institutes of Health and the Bureau of State Services of the Public Health Service, acting upon recommendations from national advisory councils and other consultive groups, made the awards on a nationwide, competitive basis. The NIH Division of Research Grants coordinated the awards.

DURING the first quarter of fiscal year 1963 the National Institutes of Health negotiated 46 research contracts totaling $1,674,929, and supplementary agreements totaling $3,663,150 on 26 research contracts already in effect. The contracts were made with many organizations, including university medical schools, pharmaceutical laboratories, and similar research facilities throughout the United States and in foreign countries.

The research contract is used by NIH for research and development activities with limited, highly specific objectives which can best be performed outside NIH laboratories. Some contracts permit use of highly specialized technical skills, equipment, or data not otherwise available.

EIGHTY-SEVEN PERCENT of former National Institute of Health fellows are conducting research and over 67 percent of them are teaching, according to a recently issued NIH survey. The survey report is part of a continuing study of the contribution of the NIH fellowship program to the Nation's supply of medical research manpower.

The report, "Public Health Service Fellows—1938–58," presents a comprehensive set of pertinent facts concerning the present professional activities of former fellows, their geographical location, the amount of time they are spending in the laboratory, at the lecture rostrum, or administrator's desk, and the types of organizations they serve.

Considerably more detailed than earlier studies of the subject made in 1953, 1955, and 1957, the new survey shows that more than half of the 2,917 former fellows queried have some employment in medical-academic institutions, or in affiliated institutions. Approximately 20 percent are in academic work other than medical, and about 16 percent are in Federal, State, or local institutions.

Copies of the 81-page report, published as PHS Publication No. 931, are available from the Office of Research Information, Building 31, Room 5B–31, National Institutes of Health, Bethesda 14, Maryland.

THE STEADY GROWTH and diversity of the National Institute of Mental Health's research grant program from 1948–61 is reflected in two studies recently published by the U.S. Department of Health, Education, and Welfare. The reports, titled *A Summary of the Research Grant Program, 1948–1961* and *A Source Book of Descriptive Data, Fiscal Year 1961*, were prepared by the Institute's Program Analysis Section, Research Grants and Fellowships Branch.

The companion reports indicate that the Institute's research grant program grew from 38 grants totaling $373,226 in fiscal year 1948 to 1,286 grants totaling $30,492,081 in fiscal year 1961. These figures represent an increase of over 30 times in the number of awards and over 80 times in the amount awarded. Between 1948 and 1961 the Institute supported a total of 5,330 annual grants representing a research investment of $106,717,850.

The diversity of the over-all research grant pro-

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gram is reflected in the growing number of distinct programs which differ in size, purpose, and scope and which support research in the medical, biological, psychological, and social sciences.

Among the major areas of social concern in which research was sponsored during 1961 were schizophrenia, mental retardation, juvenile deliquency, alcoholism, child personality and development, aging, school mental health, industrial mental health, and psychopharmocology.

A large segment of the program was devoted to basic research in the behaviorial sciences—including a variety of studies of biological, psychological, social, and cultural aspects of behavior.

DURING the first quarter of fiscal year 1963, a total of 5,567 research grants and 1,561 fellowships were awarded by the Public Health Service. These grants and fellowships, which included Research Career Awards, totaled $155,600,076.

The grants went to 217 institutions in 43 States, the District of Columbia, one Territory, and 12 foreign countries. The new Research Career Awards went to 48 scientists from the United States and 1 scientist from another country for study in 40 institutions in 17 States, the District of Columbia, and 5 foreign countries.

The awards, all on a competitive basis, were made by two of the Public Health Service's operating bureaus, the National Institutes of Health and the Bureau of State Services, acting upon recommendations from national advisory councils and study sections. The NIH Division of Research Grants served as coordinator.

National Science Foundation

ABOUT 700 high school, college, and university science teachers will begin a summer of research and study in June of this year. They will study at 63 U.S. colleges and universities under the auspices of the National Science Foundation.

About 300 high school teachers will study at 34 institutions, and 400 college teachers will study at 41 institutions. Some of the institutions provide a broad range of problems in the physical and biological sciences; others, problems in a single discipline. In all cases, however, the teachers will work alongside experienced research scientists on problems related to research normally conducted at the institutions.

The programs range in length from 8 to 12 weeks and will provide for stipends ranging from $75 to $100 a week and dependency and travel allowances.

About half of the institutions will provide an opportunity for the summer participants to continue research problems begun during the summer at their home institutions during the academic year.

Additional information about the institutions offering these programs can be obtained from the National Science Foundation, Special Projects in Science Education Section, Washington 25, D.C. Applications are available directly from the institutions. The deadline for most applications is February 15. Awards will be announced about March 15, 1963.

THE NATIONAL Science Foundation recently announced the award of 58 grants totaling $11,550,000 to 57 colleges and universities to support academic year institutes for science and mathematics teachers.

Academic year institutes are planned and conducted by individual colleges and universities. These institutions offer courses in science and mathematics which are designed to help teachers improve their subject-matter knowledge through a year's advanced study on a full-time basis. Participants in many of the institutes may earn a master's degree in science or mathematics while studying at the institute.

Approximately 1,700 experienced high school teachers and supervisors and 110 college teachers will participate in this program now which is in its 8th year. As a part of the total program, support will be available for about 50 recent college graduates who are certified to teach science and mathematics in secondary schools, but who lack teaching experience.

Many of the institutes provide coordinated summer training in addition to the academic year program, either preceding or following the regular program.

The Foundation grants will provide a stipend of $3,000 for each experienced teacher, with supplementary allowances for dependents, books, and travel. Additional stipends and dependency allowances are provided for participation in the summer programs. For nonexperienced teachers, the Foundation grants provide for a maximum stipend of $1,800 for 12 months' participation with additional allowances for dependents, books, and travel.

The academic year institutes program has helped

about 8,200 science and mathematics teachers in the past 7 years.

THE National Science Foundation recently announced the award of 60 fellowships for advanced study and research in science, mathematics, and engineering in its postdoctoral fellowship program. These awards will enable the recipients to study or carry on their research at 27 institutions in the United States and in 33 foreign institutions.

Fellowships in this program are awarded to persons who have demonstrated ability and special aptitude for advanced training in the sciences and who have recently received a doctoral degree in one of the fields of science supported by NSF. Fellows are selected by NSF on the basis of ability as evidenced by letters of recommendation, academic records, other evidence of scientific competence, and applications evaluated by panels of outstanding scientists appointed by the National Academy of Sciences—National Research Council.

NSF postdoctoral fellows receive an annual stipend of $5,000, an allowance for dependents, and a limited allowance to aid in defraying the cost of travel to the affiliated institution.

Awards in this program are made twice a year. NSF is now accepting applications through January 4 for awards to be made on March 15, 1963.

Further information regarding qualifications, stipends, and application material may be obtained from the Fellowship Office, National Academy of Sciences—National Research Council, 2101 Constitution Avenue, NW, Washington 25, D.C.

GRADUATE-LEVEL research laboratories at 17 universities throughout the United States will be constucted or renovated with the aid of $5,118,200 in NSF grants, according to a recent announcement. The 18 grants (the University of Washington received 2), will support physics, biochemistry, chemistry, engineering, biology, and geology research. All grants were made on a matching-fund basis. Only departments granting the Ph. D. were eligible for support.

The Liberal Arts

(*From page 6*)

educational institutions for a variety of services, including national and international civil service and teaching in American and foreign institutions.

HOW can these objectives be achieved, and who should attempt to achieve them?

The second question is more easily answered. It is the duty of the American educator at every level from elementary through graduate school to emphasize the fact that we live in a whole world rather than in an island culture in that world. It is going to be many years before we can solve the problem of what should be taught at each level, and how the new subject matter should be taught. There may be a wholesale revolution in American education which will involve a strengthening and deepening of the American curriculum at every level. It is possible that completion of a junior or community college may become a universal requirement, adding 2 years to the traditional 12 of compulsory free education, and that on top of this perhaps a new 4-year polycultural liberal arts college may be built as the foundation of a new university.

The increased complexity of knowledge, the need for new skills and new wisdom, together with the rapid increase in our average life span, are likely to require not only higher standards, but an expansion of the time allotted to the formal schooling.

The need for polycultural education grows out of the new interdependence of all mankind and the new role of the United States as a leader in a rapidly evolving world. The responsibilities of world leadership compel an increasing number of Americans to live and to work in non-Western societies. If Americans are to serve effectively overseas, and if Americans at home are to understand the nature of their world, it is imperative that we develop a new polycultural education.

A number of Federal programs are already creating, both directly and indirectly, a new polycultural foundation for American education. The various exchange programs now united under the authorization of the new Fulbright-Hays Act are directly contributing to this goal. Since 1947 thousands of Americans have received opportunities to broaden their educational horizons through study, teaching, lecturing, and observing in non-Western areas. Indirectly, American education has been enriched by the experience of these Americans and thousands of others who have served as educators in such programs as schools for American children overseas and the activities now administered by AID, the Agency for International Development. Our schools and colleges now have a growing number

of teachers at every level who have had polycultural experience as participants in various Federal programs. The supply of American educators with polycultural experience will be greatly increased in the next few years by returning Peace Corps volunteers.

One of the more substantial contributions to polycultural education has been the program under the National Defense Education Act, administered through the Office of Education. The Office now has an important new resource in Section 102(b)(6) of the Fulbright-Hays Act. The section will enable the Office to cooperate with American institutions in offering polycultural education opportunities to Americans both at home and overseas. This enterprise can be effective only if there is effective cooperation between American educators and the Federal Government in carrying out this program.

Private efforts of the foundations, colleges and universities, and mission boards created the beginning of an American polycultural education. Private initiative will continue to play an important part in the development of this new education. But time is short, the need is great, and the consequences of failure to instill a new wisdom into our students through our educational processes might be catastrophic.

Teacher Development Program

(*From page 8*)

were assigned to the following colleges and universities for special programs:

Harvard University	University of Wisconsin
The University of Michigan	University of Oklahoma
Ohio University	Western Michigan University
San Francisco State College	Rutgers-The State University
The University of Texas	
University of Utah	

In addition, two special teacher-development workshops were held for 105 teachers and administrators from Central and South American Republics, one in February and the other in October, at the University of Puerto Rico, Río Piedras, Puerto Rico.

Like those of other years, this year's visiting educators participating in this program have unique opportunities to study and observe various educational activities throughout the United States. While at the college and university training centers, they receive resource information about education in the United States and, more specifically, about recent trends in the development of educational ideas. They are invited to observe programs in raising the quality of education at all levels. Visits to many demonstration and area schools in which experimental projects are in progress afford the educators an introduction to more practical aspects. Later, through visiting the State departments of education and living with American families, they have opportunities to view many kinds of educational experimentation and to discuss American education with professional educators, parents, and children.

NEW PUBLICATIONS

Government Publications

From the Office of Education

(1) *Cost Publications: Send request, enclosing remittance (check or money order), to the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.*

(2) *Free Publications: Request direct from the Agency issuing them.*

From the Office of Education

Earned Degrees Conferred, 1959–60: Bachelor's and Higher Degrees, by Wayne E. Tolliver. 1962. 207 p. $1.50. (OE–54013–60)

Education and the Development of Human Technology, by Kenneth L. Neff. 1962. 34 p. 20 cents. (OE–10018)

Education Directory, Part 3: Higher Education, 1961–1962: Supplement No. 2, prepared by Margaret W. Hansley and Theresa Wilkins. October 1962. 26 p. Free. (OE–50000–62B)

Education—Literature of the Profession, by Lois B. Watt. 1962. 13 p. Free. (OE–14031–18)

Educational Data: Uruguay, by Grace I. Krumwiede, Adela R. Freeburger and Charles C. Hauch. April 1962. 11 p. Free. (OE–14034–62)

Federal Funds for Education: Fields; Levels; Recipients, 1959 and 1960, by Penrose B. Jackson

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and Dolores A. Steinhilber. 1962. 82 p. 60 cents. (OE–10013)

Loans for Laboratory and Other Special Equipment for Science, Mathematics, and Modern Foreign Languages; Basic Facts, Title III. 1962. 8 p. 10 cents. (OE–21022)

Ministries of Education: Their Functions and Organization, by Kathryn G. Heath. 1962. 684 p. $2.50. (OE–14064)

Progress in the Construction of Higher Education Facilities, 1951–59, by W. Robert Bokelman and Leslie F. Robbins. 1962. 57 p. 40 cents. (OE–51002)

Projects Initiated Under Title VII, Part B: National Defense Education Act, July 1, 1958–August 31, 1962. 1962. 20 p. Free. (OE–34021)

Research in the Teaching of Science: July 1957–July 1959, by Ellsworth S. Obourn, Paul E. Blackwood, and Margaret J. McKibben. 1962. 84 p. 35 cents. (OE–29000–59)

Total Enrollment in Institutions of Higher Education First Term, 1959–60: Basic Data. 1962. 69 p. 55 cents. (OE–54025)

College and University Finance Series

A Half-Century of Salaries at Land-Grant Institutions, by W. Robert Bokelman, Louis A. D'Amico and Anna Jane Holbrook. October 1962. 9 p. Free. (OE–52004–3)

College and University Physical Facilities Series

Gross Area of Non-Residential Buildings, by Facilities Category, by E. Eugene Higgins, Mary B. Fuller, and Dorothy M. Jones. September 1962. 4 p. Free. (OE–5100–14)

New Construction and Rehabilitation on College Campuses, 1959–60, by W. Robert Bokelman, and Leslie F. Robbins. August 1962. 10 p. Free. (OE–51004–15)

Teacher Education Series

Fifth-Year Programs of Classroom Teacher Education: A Digest of the Survey Report, by Henry Harap. July 1962. 10 p. Free. (OE–58007)

From Other Government Agencies

Science Course Improvement Projects: Courses, Written Materials, Films, Studies Supported by the National Science Foundation. October 1962. 64 p. Free. (National Science Foundation, NSF 62–12)

Public Health Service Grants and Awards by the National Institutes of Health. Fiscal Year 1961 Funds Part I: Health Research Facilities Construction and Research Projects. Washington, 1962. 459 p. $1.25. (PHS Publication No. 883, Part I)

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